<u>CLAIMS</u>

1.   A method for sending a resource request of a mobile device to a remote server through a wireless network, said method comprising the acts of:

5   (a) receiving a resource request, the requested resource being associated with the remote server;

(b) determining whether the requested resource is of a synchronous type resource request or of a an asynchronous type resource request;

(c) placing the resource request in an outgoing queue and not awaiting

10   a resource reply when said determining (b) determines that the resource request is an asynchronous type resource request;

(d) when said determining (b) determines that the resource request is a synchronous type resource request, performing the acts of

(d1) determining whether the requested resource is present in a

15   local cache memory of the mobile device;

(d2) supplying the requested resource from the local cache memory when said determining (d) determines that the requested resource is present in the local cache memory; and

(d3) sending the resource request to the remote server through

20   the wireless network and awaiting a resource reply when said determining (d) determines that the requested resource is not present in the local cache memory.

25   2.   A method as recited in claim 1, wherein said method further comprises:

(e) removing the resource request from the outgoing queue when the wireless network is available and then sending the resource request to the remote server through the wireless network.

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3.   A method as recited in claim 2, wherein said method further comprises:

(f) receiving a resource reply at the mobile device in response to the asynchronous resource request via the wireless network when the wireless network is available.

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4.   A method as recited in claim 3, wherein said method further comprises:

(g) storing the resource reply in the cache memory.

5.   A method as recited in claim 1, wherein the application executing on
10 the mobile device issues the resource request and indicates whether the resource request is a synchronous resource request or asynchronous resource request.

6.   A method as recited in claim 1, wherein the application is a web
15 browser, and the resource request references a universal resource identifier.

7.   A method as recited in claim 6, wherein the mobile device is one of a mobile telephone, a mobile pager, a mobile personal digital assistant, and a mobile computer.

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8.   A method as recited in claim 7, wherein said method further comprises:

(e) determining whether the wireless network is available; and

(f) removing the asynchronous resource request from the outgoing queue when the wireless network is available and then sending the
25 asynchronous resource request to the remote server through the wireless network.

9.   A method as recited in claim 8, wherein the application executing on the mobile device issues the resource request and indicates whether the resource request is a synchronous resource request or asynchronous resource request.

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10.   A mobile device that connects to a remote server through a network, said mobile device comprising:

an application that executes on said mobile device, said application produces outgoing messages that are to be sent to the remote server;

10   an asynchronous message queue that stores outgoing messages from said application that are to be sent from said mobile device to the remote server; and

an asynchronous message manager that manages the sending of the outgoing messages from said asynchronous message queue to the remote

15   server through the network.

11.   A mobile device as recited in claim 10, wherein said application requests asynchronous transmission of the outgoing messages.

20   12.   A mobile device as recited in claim 11, wherein said application does not await to receive reply messages from the remote server in response to the outgoing messages.

13.   A mobile device as recited in claim 11, wherein the network comprises

25   a wireless network.

14.   A mobile device as recited in claim 13, wherein said application is a web browser.

15.   A mobile device as recited in claim 14, wherein said mobile device is one of a mobile telephone, a mobile pager, a mobile personal digital assistant, and a mobile computer.

16.   A mobile device as recited in claim 10,

        wherein the network comprises a wireless network,

        wherein said mobile device further comprises a cache memory that stores resources likely to be requested by said application, and

        wherein the outgoing messages are requests for resources.

17.   A mobile device as recited in claim 10,

        wherein the network is occasionally unavailable to said mobile device, and

        wherein said asynchronous message manager operates to leave the outgoing messages stored in said asynchronous message queue while the network is unavailable to said mobile device, and then to send the outgoing messages stored in said asynchronous message queue to the server when the network becomes available to said mobile device.

18.   A mobile device as recited in claim 17, wherein the network comprises a wireless network.

19.   A mobile device as recited in claim 10,

        wherein the outgoing messages are synchronous or asynchronous messages,

        wherein said mobile device further comprises a synchronous message manager that manages the sending of the synchronous messages to the remote server through the network,

wherein said asynchronous message queue stores the asynchronous messages from said application that are to be sent from said mobile device to the remote server, and

wherein said asynchronous message manager that manages the

5   sending of the asynchronous messages from said asynchronous message queue to the remote server through the network.

20.   A mobile device as recited in claim 19,

wherein the network comprises a wireless network,

10   wherein said application requests asynchronous transmission of the outgoing messages, and

wherein said application does not await to receive reply messages from the remote server in response to the outgoing messages.

15 21.   A mobile device as recited in claim 10,

wherein the network comprises a wireless network,

wherein the outgoing messages are requests for resources, and

wherein said mobile device further comprises:

a cache memory that stores resources likely to be requested by

20   said application;

a channel manager that loads a content channel into said cache memory from the remote server through the wireless network.

22.   A mobile device as recited in claim 21, wherein said channel manager

25   loads a content channel when said mobile device is provisioned or on a user request.

23.   A mobile device as recited in claim 21, wherein the content channel comprises channel resources,

        wherein said channel manager stores the channel resources in a reserved portion of said cache memory.

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24.   A mobile device as recited in claim 23, wherein the channel resources stored in the reserved portion of said cache memory are protected from cache clean-up or refresh processing.

10 25.   A mobile device as recited in claim 21,

        wherein the network comprises a wireless network,

        wherein the outgoing messages are requests for resources, and

        wherein said mobile device further comprises a list manager that manages lists provided on said mobile device such that lists can be
15 manipulated without interaction with the remote server through the wireless network.

26.   A mobile device as recited in claim 10,

        wherein the network comprises a wireless network,

20   wherein the outgoing messages are requests for resources, and

        wherein said mobile device further comprises a list manager that manages a list provided on said mobile device such that lists can be manipulated without interaction with the remote server through the wireless network.

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27.   A mobile device as recited in claim 26, wherein said mobile device stores a list object for the list, the list object facilitates said list manager in manipulating the list.

28.   A mobile device as recited in claim 27,

wherein the list is display on a display device of said mobile device, and

5   wherein said list object comprises: a list specification that describes the list, and a plurality of list elements that correspond to each entry of the displayed list.

29.   A mobile device as recited in claim 26, wherein said mobile device
10   stores a list object for the list, the list object facilitates said list manager in manipulating the list as well as subsequent asynchronous notification of the remote server of the manipulations that have been made to the list.

30.   A method for storing a content channel from a remote server onto a
15   mobile device through a wireless network, the content channel including resources, said method comprising the acts of:

(a) receiving an instruction to load the content channel into a cache memory of the mobile device;

(b) determining whether the content channel can fit within a reserved
20   portion of the cache memory of the mobile device; and

(c) loading the content channel into the reserved portion of the cache memory from the remote server through the wireless network when said determining (b) determines that the content channel is able to fit within the reserved portion of the cache memory.

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31.   A method as recited in claim 30, wherein said method further comprises:

(d) performing automatic notifications to either the mobile device or the remote server based on the success or failure of the storing of the content channel on the mobile device.

5   32.   A method as recited in claim 30, wherein the content channel is defined by a channel specification.

33.   A method as recited in claim 30, wherein the reserved portion of the cache memory is protected from cache clean-up or refresh processing being
10   used in a remaining portion of the cache memory, thus once loaded the presence of the content channel within the cache memory is guaranteed.

34.   A method for manipulating a list resident on a mobile device used with a wireless communication system, said method comprising the acts of:

15   (a) displaying a list on a display device of the mobile device, the list being displayed from a descriptive file;

(b) receiving, at the mobile device, a list command to modify the displayed list;

(c) locating a list object stored within the mobile device, the list object
20   corresponding to the displayed list;

(d) modifying the list object in accordance with the list command;

(e) obtaining, from the list object, a pointer to the descriptive file; and

(f) modifying at least a portion of the descriptive file in accordance with the list command.

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35.   A method as recited in claim 34, wherein said acts of (a) – (f) are performed locally by the mobile device without interaction with remote servers of the wireless communication system.

36.   A method as recited in claim 34, wherein said method further comprises:

        (g) asynchronously notifying a remote server of the modification made to the displayed list.

37.   A method as recited in claim 34, wherein the descriptive file is a markup language file.

38.   A method as recited in claim 34, wherein said method further comprising:

        (g) locating, prior to said modifying (f), a portion of the descriptive file to be modified using at least the pointer.

39.   A method as recited in claim 38, wherein said locating (g) of the portion of the descriptive file comprises:

        (g1) identifying a target element within the descriptive file based on the pointer; and

        (g2) locating within the target element the portion of the descriptive file to be modified.

40.   A method as recited in claim 39, wherein said locating (g2) comprises:

        obtaining a reference indicator for a list element of the list object that has been modified; and

        searching the target element for the reference indicator to locate the portion of the descriptive file to be modified.

41.   A method as recited in claim 38, wherein said modifying (f) comprises:

editing the portion of the descriptive file to be modified in accordance with the list command.

42.   A method as recited in claim 34, wherein said modifying (f) comprises:

regenerating the descriptive file in accordance with the list command.

43.   A method as recited in claim 34, wherein at least a portion of the list
object is stored within the descriptive file.

44.   A computer readable medium including computer program code for
sending a resource request of a mobile device to a remote server through a
wireless network, said computer readable medium comprising:

computer program code for receiving a resource request, the
requested resource being associated with the remote server;

computer program code for determining whether the requested
resource is of a synchronous type resource request or of a an asynchronous
type resource request;

computer program code for placing the resource request in an
outgoing queue and not awaiting a resource reply when the resource request
is an asynchronous type resource request; and

computer program code for sending the resource request to the remote
server through the wireless network and awaiting a resource reply when the
resource request is a synchronous type resource request.